

## **ABSTRACT OF THE DISCLOSURE**

An apparatus and method for eliminating dross in a solder pot of a soldering machine by converting the dross into usable solder. The conversion apparatus is comprised of an impeller, a shroud, an electric motor for driving the impeller, a vacuum source operatively connected to the shroud, an arrangement of guides immersed in the solder pot for recirculating liquid solder and a chemical de-oxidizing agent. The impeller and shroud are adjacent to a free surface of the dross which forms at the top portion of the liquid solder. The method includes the steps of adding a measured amount of de-oxidizing agent to the solder pot, agitating and recirculating the liquid solder/de-oxidizer mixture with the impeller to break-up the dross into smaller particles and separate the solder from the dross, and removing a residue of the dross by suction as the recirculating mixture passes beneath the shroud.